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EXAMINER

STEVENS, ROBERT

ART UNIT	PAPER NUMBER
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2162

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/091,237	Applicant(s) SU ET AL.	
	Examiner ROBERT STEVENS	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,10,13-16,18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-4,10, 13-16, 18 and 20-21 is/are rejected.
- 7) ☒ Claim(s) 5-9,11,12 and 22-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 3/25/2010 PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

/John Breene/

Supervisory Patent Examiner, Art Unit 2162

2. The Office withdraws the previous rejections of the claims under 35 USC §103(a), in light of the amendment. However, the Office sets forth new objections to the claims and new rejections of the claims under 35 USC §§102(e) and 103(a), in light of the amendment.

Response to Arguments

3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

It is further noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-1333, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

The Office also notes MPEP § 2144.01, that quotes In re Preda, 401 F.2d 825, 159 USPQ 342, 344 (CCPA 1968) as stating "in considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." Further MPEP 2123, states that "a reference may be relied upon for all that it would have reasonably suggested to one having

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ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989).

For at least these reasons, the Office asserts the rejections of the claims as set forth below.

Allowable Subject Matter

4. **Claims 5-9, 11-12 and 22-26 are objected to** as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 3-4, 10, 18 and 20-21 are rejected under 35 U.S.C. 102(e)** as being anticipated by Swamy et al (US Patent No. 6,874,141, hereafter referred to as “Swamy”).

Regarding independent claim 1: Swamy teaches *A method of document transformation comprising: a) modeling a source XML document corresponding to a source schema as a source tree having a plurality of source nodes;* (See Swamy Abstract discussing source and target schemas, in the context of Fig. 4A #56 and #58 teaching source and target tree nodes. See also col. 2 lines 13-19 discussing the creation of source and target XML schemas.) *b) modeling a target XML document corresponding to a target schema as a target tree having a plurality of target nodes;* (See Swamy Abstract discussing source and target schemas, in the context of Fig. 4A #56 and #58 teaching source and target tree nodes. See also col. 2 lines 13-19 discussing the creation of source and target XML schemas.) *and c) generating a sequence of transformation operations that transforms said source tree to said target tree, said sequence of transformation operations utilizing an extensible stylesheet language for transformations (XSLT) generator to translate the sequence of transformation operations into an equivalent XSLT transformation script and utilize the transformation script to transform an input XML document corresponding to the source schema to the target XML document corresponding to the target schema.* (See Swamy See Fig. 2 #28 showing an XSLT map, and the Abstract and col. 2 lines 30-50 teaching the generation of an XSL code representation of a source and target schema mapping. See also col. 12 lines 2-8 discussing the generation of XSL or XSLT code.)

Regarding claim 3: Swamy teaches *wherein c) comprises: matching said plurality of source nodes to said plurality of target nodes.* (See Swamy col. 9 lines 45-60 discussing hierarchy matching between nodes of source and target trees.)

Regarding claim 4: Swamy teaches *wherein c) comprises: automatically generating said sequence of transformation operations.* (See Swamy col. 12 lines 2-22 discussing automatic code generation for each hierarchy match.)

Regarding independent claim 10: Swamy teaches *A method of document transformation comprising: a) modeling a source schema of XML and a target schema of XML as a tree structure creating a source tree and a target tree, said source tree having a plurality of source nodes, said target tree having a plurality of target nodes;* (See Swamy Abstract discussing source and target schemas, in the context of Fig. 4A #56 and #58 teaching source and target tree nodes. See also col. 2 lines 13-19 discussing the creation of source and target XML schemas.) *and b) generating a sequence of transformation operations that transforms said source XML document to said target XML document, wherein said plurality of source nodes of said source schema are matched and transformed to said plurality of target nodes in said target schema, said sequence of transformation operations utilizing an extensible stylesheet language for transformations (XSLT) generator to translate the sequence of transformation operations into an equivalent XSLT transformation script and utilize the transformation script to transform an input XML document corresponding to the source schema to the target XML document corresponding to the target schema.* (See Swamy See Fig.

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2 #28 showing an XSLT map, and the Abstract and col. 2 lines 30-50 teaching the generation of an XSL code representation of a source and target schema mapping. See also col. 12 lines 2-8 discussing the generation of XSL or XSLT code.)

Regarding independent claim 18: Swamy teaches *A computer system comprising: a processor;* (See Swamy Fig. 15 #521 processing unit.) *and a computer readable memory coupled to said processor and containing program instructions that, when executed, implement a method of document transformation* (See Swamy Fig. 15 #522 system memory, in the context of col. 6 lines 27-39 discussing a system for data transformations between source and target documents.) *comprising: a) modeling a source XML document corresponding to a source schema as a source tree having a plurality of source nodes;* (See Swamy Abstract discussing source and target schemas, in the context of Fig. 4A #56 and #58 teaching source and target tree nodes. See also col. 2 lines 13-19 discussing the creation of source and target XML schemas.) *b) modeling a target XML document corresponding to a target schema as a target tree having a plurality of target nodes;* (See Swamy Abstract discussing source and target schemas, in the context of Fig. 4A #56 and #58 teaching source and target tree nodes. See also col. 2 lines 13-19 discussing the creation of source and target XML schemas.) *and c) generating a sequence of transformation operations that transforms said source tree to said target tree, said sequence of transformation operations utilizing an extensible stylesheet language for transformations (XSLT) generator to translate the sequence of transformation operations into an equivalent XSLT transformation script and utilize the transformation script to transform*

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an input XML document corresponding to the source schema to the target XML document corresponding to the target schema. (See Swamy See Fig. 2 #28 showing an XSLT map, and the Abstract and col. 2 lines 30-50 teaching the generation of an XSL code representation of a source and target schema mapping. See also col. 12 lines 2-8 discussing the generation of XSL or XSLT code.)

Claims 20-21 are substantially similar to claims 3-4, respectively, and therefore likewise rejected.

Office Note

Assuming *arguendo* that the claims addressed above are not anticipated by the Swamy reference, those claims may be rejected under the obviousness standard of 35 USC 103(a). Any claims not addressed in the previous section (Claim Rejections - 35 USC § 102) are addressed below.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1, 3-4, 10, 13-16, 18 and 20-21 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Hong Su et al. (“Identification of Syntactically Similar DTD Elements for Schema Matching”, The Second International Conference on Web-Age Information Management (Waim 2001), Xi'an, China, July 2001, pp. 1-13, hereafter referred to as “SchemaMatching”) in view of Hong Su et al. (“XEM: Managing the Evolution of XML Documents”, Eleventh International Workshop on Research Issues in Data Engineering (RIDE 2001), Heidelberg, Germany, April 1-2, 2001, pp. 1-8, hereafter referred to as “XEM”) and further in view of Swamy et al. (US Patent No. 6,874,141, hereafter referred to as “Swamy”).

Regarding independent claim 1: SchemaMatching teaches *A method of document transformation comprising: a) modeling a source XML document corresponding to a source schema as a source tree having a plurality of source nodes;* (See SchemaMatching discussing DTD schema matching in the Abstract and discussing the matching of elements between two DTD schemas. SchemaMatching further discusses in Example 1 of page 2, the modeling of DTD schemas for a customer (i.e., source) and a client (i.e., target) as DTD graphs. Figure 1 of page 5 shows (arranged as tree data structures) the element graphs for the customer and client DTDs, and section “2.3 Construction of a Directed Acyclic Graph (DAG)” describes the process of creating the DAG, or tree, data structure.) *b) modeling a target XML document corresponding to a target schema as a target tree having a plurality of target nodes;* (See

SchemaMatching discussing DTD schema matching in the Abstract and discussing the matching of elements between two DTD schemas. SchemaMatching further discusses in Example 1 of page 2, the modeling of DTD schemas for a customer (i.e., source) and a client (i.e., target) as DTD graphs. Figure 1 of page 5 shows (arranged as tree data structures) the element graphs for the customer and client DTDs, and section “2.3 Construction of a Directed Acyclic Graph (DAG)” describes the process of creating the DAG, or tree, data structure.)

However, SchemaMatching does not explicitly teach the generation of a sequence of transformation operations as claimed. XEM, though, discloses *and c) generating a sequence of transformation operations that transforms said source tree to said target tree*, (See XEM teaching the application of a series of transformation operations in section “4 Completeness of DTD Change Operations” on pages 6-7, discussing a proof for the generation of a target DTD (e.g., G’) from a source DTD (e.g., G) via a finite sequence of operations (e.g., “F()”). XEM further discloses a working framework, dubbed “Marrow”, the implemented the concepts disclosed by XEM, and was demonstrated at the ACM SIGMOD 2000. (See page 7 section “5 System Implementation: MARROW” and Footnote 1.) Additionally, XEM discusses the application of DTD change primitives to child nodes in order to ensure the validity of the target DTD in section “3.2 DTD Change Primitives”. See also the last paragraph on page 3 discussing that an XML tree is derived from a DTD graph.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of XEM for the benefit of SchemaMatching, because to do so would have allowed a designer to change a DTD without requiring change of underlying XML data, as

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taught by XEM in top left paragraph of page 2. These references were all applicable to the same field of endeavor, i.e., XML programming.

Additionally, SchemaMatching in view of XEM does not explicitly teach the remaining limitations as claimed. Swamy, though, teaches *said sequence of transformation operations utilizing an extensible stylesheet language for transformations (XSLT) generator to translate the sequence of transformation operations into an equivalent XSLT transformation script and utilize the transformation script to transform an input XML document corresponding to the source schema to the target XML document corresponding to the target schema.* (See Swamy Abstract and col. 13 lines 11-17 teaching the generation of XSL/XSLT code representing a mapping between document schemas. See also col. 12 lines 20-22 discussing XSL code generation for each of the hierarchy matches in a match list associated with a target tree.)

It would have been obvious to one of ordinary skill in the art at the time of Applicant's subject matter to apply the teachings of Swamy for the benefit of SchemaMatching in view of XEM, because to do so would have allowed one to compile a graphical representation of data transformations into an XSL stylesheet representation of the mapping, as taught by Swamy in col. 3 lines 19-25. These references were all applicable to the same field of endeavor, i.e., translation services.

Regarding claim 3: SchemaMatching teaches *wherein c) comprises: matching said plurality of source nodes to said plurality of target nodes*. (See SchemaMatching disclosing the matching of leaf vertices (i.e., nodes of a tree) in section “3.1 Initial Leaf Vertices Matching” on pages 5-6, discussing operational steps for “Matching Criterion 1” between leaf nodes. Discussion of “Matching Criterion 2” in section “4 Detection of Hierarchically Equivalent Elements” on page 7, discloses a stricter set of rules for matching leaf nodes that includes consideration of the tree hierarchy to the nodes being matched.)

Regarding claim 4: SchemaMatching does not explicitly teach the remaining limitations as claimed. XEM, though, discloses *wherein c) comprises: automatically generating said sequence of transformation operations*. (See XEM teaching the application of a series of transformation operations in section “4 Completeness of DTD Change Operations” on pages 6-7, discussing a proof for the generation of a target DTD (e.g., G') from a source DTD (e.g., G) via a finite sequence of operations (e.g., “F()”). XEM further discloses a working framework, dubbed “Marrow”, that implemented the concepts disclosed by XEM, and was demonstrated at the ACM SIGMOD 2000. (See page 7 section “5 System Implementation: MARROW” and Footnote 1.) Additionally, XEM discusses the application of DTD change primitives to child nodes in order to ensure the validity of the target DTD in section “3.2 DTD Change Primitives”).

Regarding independent claim 10: SchemaMatching teaches *A method of document transformation comprising: a) modeling a source schema of XML and a target schema of XML as a tree structure creating a source tree and a target tree, said source tree having a plurality of source nodes, said target tree having a plurality of target nodes;* (See SchemaMatching discussing DTD schema matching in the Abstract and discussing the matching of elements between two DTD schemas. SchemaMatching further discusses in Example 1 of page 2, the modeling of DTD schemas for a customer (i.e., source) and a client (i.e., target) as DTD graphs. Figure 1 of page 5 shows (arranged as tree data structures) the element graphs for the customer and client DTDs, and section “2.3 Construction of a Directed Acyclic Graph (DAG)” describes the process of creating the DAG, or tree, data structure.) *wherein said plurality of source nodes of said source schema are matched and transformed to said plurality of target nodes in said target schema,* (See SchemaMatching disclosing the matching leaf vertices (i.e., nodes of a tree) in section “3.1 Initial Leaf Vertices Matching” on pages 5-6, discussing operational steps for “Matching Criterion 1” between leaf nodes. Discussion of “Matching Criterion 2” in section “4 Detection of Hierarchically Equivalent Elements” on page 7, discloses a stricter set of rules for matching leaf nodes that includes consideration of the tree hierarchy to the nodes being matched. SchemaMatching also discloses three exemplary methods of transforming DTD elements on page 3.)

However, SchemaMatching does not explicitly teach the generation of a sequence of transformation operations as claimed. XEM, though, discloses *and b) generating a sequence of transformation operations that transforms said source XML document to said target XML*

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document, (See XEM teaching the application of a series of transformation operations in section “4 Completeness of DTD Change Operations” on pages 6-7, discussing a proof for the generation of a target DTD (e.g., G’) from a source DTD (e.g., G) via a finite sequence of operations (e.g., “F()”). XEM further discloses a working framework, dubbed “Marrow”, the implemented the concepts disclosed by XEM, and was demonstrated at the ACM SIGMOD 2000. (See page 7 section “5 System Implementation: MARROW” and Footnote 1.)

Additionally, XEM discusses the application of DTD change primitives to child nodes in order to ensure the validity of the target DTD in section “3.2 DTD Change Primitives”. See also the last paragraph on page 3 discussing that an XML tree is derived from a DTD graph.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of XEM for the benefit of SchemaMatching, because to do so would have allowed a designer to change a DTD without requiring change of underlying XML data, as taught by XEM in top left paragraph of page 2. These references were all applicable to the same field of endeavor, i.e., XML programming.

Additionally, SchemaMatching in view of XEM does not explicitly teach the remaining limitations as claimed. Swamy, though, teaches *said sequence of transformation operations utilizing an extensible stylesheet language for transformations (XSLT) generator to translate the sequence of transformation operations into an equivalent XSLT transformation script and utilize the transformation script to transform an input XML document corresponding to the source schema to the target XML document corresponding to the target schema.* (See Swamy Abstract and col. 13 lines 11-17 teaching the generation of XSL/XSLT code representing a

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mapping between document schemas. See also col. 12 lines 20-22 discussing XSL code generation for each of the hierarchy matches in a match list associated with a target tree.)

It would have been obvious to one of ordinary skill in the art at the time of Applicant's subject matter to apply the teachings of Swamy for the benefit of SchemaMatching in view of XEM, because to do so would have allowed one to compile a graphical representation of data transformations into an XSL stylesheet representation of the mapping, as taught by Swamy in col. 3 lines 19-25. These references were all applicable to the same field of endeavor, i.e., translation services.

Regarding claim 13: SchemaMatching teaches *wherein said source schema is a source document type definition (DTD) and said target schema is a target DTD*. (See SchemaMatching disclosing the use of source and target DTDs in phase number "1." above the section entitled "2 DTD Data Model", discussing modeling source and target DTDs as graphs.)

Regarding claim 14: SchemaMatching teaches *folding nodes in said source and target trees in a preprocessing phase to find one- to-one node matching*. (See SchemaMatching disclosing simplifying DTDs into a reduced DTD in section "2.1 Simplification Transformation on DTD", discussing, for example, a transformation that folds a group into a flattened representation.)

Regarding claim 15: SchemaMatching teaches *merging nodes in said source and target trees in a preprocessing phase to find one-to-one node matching*. (See SchemaMatching disclosing simplifying DTDs into a reduced DTD in section “2.1 Simplification Transformation on DTD”, discussing, for example, a transformation that merges sub-elements having the same name in a content model.)

Regarding claim 16: SchemaMatching does not explicitly disclose constraining node operations. XEM, though, discloses *performing transformation operations only once at a node in said source tree and said target tree with the following exceptions: a) a relabel operation following an unfold operation; b) said unfold operation following said relabel operation; c) said relabel operation performed between an attribute and an element following or followed by a deletion or an addition of a qmark quantifier node*. (See XEM teaching the well-known use of quantifier node notation, such as qmark “?”, asterisk “*” and plus “+” in sub-section 2. Constraint Node” on page 3. XEM further discusses labelling in the third paragraph below the section header “2.2 The DTD Data Model”, discussing the labelling function *l* (i.e., “ell”). XEM discloses on pages 3-6 various operations performed on DTD models. In section “2.2 The DTD Data Model”, XEM sets forth how nodes are labelled and the notation used by one skilled in the art at the time of the invention. Section “3.2 DTD Change Primitives” sets forth various operations using that notation, including folding or flattening (see page 5 “5. flattenGroup(E,

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pos)”) [it being obvious that one performed the inverse of folding in order to unfold], and the changing of attributes [including relabeling] in section “3.2.3 Changes to an Attribute Type Definition” on page 6. It is noted that when well known functions were performed was merely an obvious variant to one skilled in the art at the time of Applicant’s subject matter.)

Claim 18 is substantially similar to claim 1, and therefore likewise rejected. It is further noted that although SchemaMatching and XEM do not explicitly disclose the use of a processor and memory, Swamy discloses the use of a computing system including a processing unit #521 connected to system memory #522 and a hard drive #527.

Claims 20-21 are substantially similar to claims 3-4, respectively, and therefore likewise rejected.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-Patent Literature

Pietriga, Emmanuel, et al., "VXT: A Visual Approach to XML Transformations", DocEng 01, Atlanta, GA, Nov. 9-10, 2001, pp. 1-10.

Schlieder, Torsten, "Similarity Search in XML Data Using Cost-Based Query Transformations", WebDB '01, Santa Barbara, CA, May 2001, pp. 1-6.

Onizuka, Makoto, et al., "XTL: An XML Transformation Language and XSLT generator for XTL", Extreme Markup Languages 2001, Montreal, Quebec, Aug. 14-17, 2001, pp. i and 1-26.

US Patent Application Publications

Birder	2004/0205615
Wang et al	2002/0035579
Davis et al	2002/0133516
Menke	2002/0123878
Hori et al	2001/0018696
Kuznetsov	2001/0056504

US Patents

Vedula et al	7,159,185
Davis et al	7,076,728
Birder	7,120,869
Santos	7,107,521
Brooke et al	6,763,343
Brooke et al	6,748,569
Vedula et al	6,823,495
Hori et al	6,950,984
Kuznetsov	6,772,413

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Stevens whose telephone number is (571) 272-4102. The examiner can normally be reached on M-F 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Stevens/
Primary Examiner, Art Unit 2162

June 16, 2010